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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,287	12/17/1999	KOICHI KAMIJO	JA9-98-173	9962

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EXAMINER

SIMITOSKI, MICHAEL J

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/459,287

Applicant(s)

KAMIJO ET AL.

Examiner

Michael J Simitoski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

NORMAN M. WRIGHT
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment of 11/17/03 has been received and considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5, 8, 10-12, 14-19 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,510,520 to Steinberg in view of U.S. Patent 5,949,877 to Traw et al. (Traw).

Regarding claims 1, 5, 8, 10, 11, 12 & 14, 15, 17, Steinberg discloses writing digital data from an input device/digital camera to a memory device/secure storage device and transferring digital data from the memory device/secure storage device to a receiving device/computer (see Fig. 2). Steinberg does not disclose authenticating between the input device and memory device and between the memory device and receiving device. However, Traw teaches that copying and/or other misuse of data being transferred can be prevented by performing a first device authentication between a content source and a content sink (see col. 1, lines 40-49, col. 2, lines 61-65 & col. 9, lines 30-38). Public/private key pairs are assigned to compliant systems (see col.

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5, lines 55-67) for authentication/verification (see col. 6, lines 58-67 & col. 7, lines 1-35).

Traw's system also uses Diffie-Hellman key exchange/exchange of authentication value generated independently of the digital data (see col. 7, lines 36-43). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to perform both a first device authentication between the input device and memory device and a second device authentication between the memory device and receiving device to prevent copying and/or misuse of the data during transfer. One of ordinary skill in the art would have been motivated to perform such a modification to prevent copying and/or misuse of the data during transfer, as taught by Traw (see col. 1, lines 40-49, col. 2, lines 61-65 & col. 9, lines 30-38).

Regarding claim 2, Steinberg discloses the device adding data to the image data, such as fingerprinting (see col. 2, lines 16-38).

Regarding claim 3, Steinberg discloses a processor in the secure storage device/memory device (see Fig. 3, element 76 & col. 5, lines 47-67).

Regarding claim 16, Steinberg discloses a central processing unit/processor built into said memory device (see Fig. 4, element 102).

Regarding claims 18 & 19, Steinberg discloses a storage device that can include an EEPROM or ROM to store data, such as a key (see col. 3, lines 29-45), as needed (see col. 5, lines 55-59 & col. 6, lines 56-65).

Regarding claim 21, the memory device claim is substantially equivalent to method claim 1. Therefore, claim 21 is rejected under similar rationale.

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4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg in view of Traw, in further view of U.S. Patent 5,465,300 to Altschuler et al. (Altschuler). Steinberg discloses a system, as modified above, but lacks determining whether to use secure or plaintext communication. Altschuler discloses a method whereby a plaintext communication is initiated between two devices. Upon connection, the devices determine if a secure communication can be open and initiate a secure mode (see Fig. 5), to alleviate the need for human decision on whether or not to go secure (see column 1, lines 39-53). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the Steinberg invention to include a means for automatically determining whether or not to use secure communication methods. One of ordinary skill in the art would have been motivated to perform such a modification to eliminate the need for human decision, as taught by Altschuler (see Fig. 5 & col. 1, lines 39-53).

5. Claims 13, 20 & 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg in view of Traw, as applied to claims 1, 15 & 21 above, in further view of Applied Cryptography, Second Edition by Schneier.

Regarding claim 13, Steinberg discloses the memory device/secure storage device creating an authentication file/electronic signature on the data (see col. 2, lines 16-38), but lacks authenticating the electronic signature on the digital data when transferring the digital data from the memory device to the receiving device. However, Schneier teaches that message authentication codes/electronic signatures are useful to allow a single user to determine if his files have been altered, perhaps by a virus (see page 455, §18.14). Therefore, it would have been

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obvious to one having ordinary skill in the art at the time the invention was made to authenticate the electronic signature when transferring the digital data from the memory device to the receiving device. One of ordinary skill in the art would have been motivated to perform such a modification to ensure that files have not been altered, as taught by Schneier (see page 455, §18.14).

Regarding claim 20, Steinberg discloses a means for generating an electronic signature/authentication file on digital data when writing the digital data from the input device/camera to the memory device (see Fig. 6 & col. 6, lines 48-67), but lacks means associated with the memory device for authenticating the electronic signature when transferring the digital data from the memory device to the receiving device. However, Schneier teaches that message authentication codes/electronic signatures, which are key-dependent one-way hash functions, are useful to allow a single user to determine if his files have been altered, perhaps by a virus (see page 455, §18.14). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include means for authenticating the electronic signature when transferring the digital data from the memory device to the receiving device. One of ordinary skill in the art would have been motivated to perform such a modification to ensure that files have not been altered, as taught by Schneier (see page 455, §18.14).

Regarding claims 22, the memory device claim is substantially equivalent to the apparatus claim 20 and is therefore rejected under similar rationale.

Regarding claims 23 & 25, the method claim is substantially equivalent to the method claim 13 and is therefore rejected under similar rationale.

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Regarding claims 24, 26 & 28, Steinberg discloses a memory device/secure storage device comprising means for generating an electronic signature/authentication file on digital data when writing the digital data from the input device/camera to the memory device (see Fig. 6 & col. 6, lines 48-67) and means for storing the digital data and the electronic signature (see col. 6, lines 48-55), but lacks means for authenticating the electronic signature when transferring the digital data from the memory device to the receiving device. However, Schneier teaches that message authentication codes/electronic signatures, which are key-dependent one-way hash functions, are useful to allow a single user to determine if his files have been altered, perhaps by a virus (see page 455, §18.14). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include means for authenticating the electronic signature, using a hash function and internal key, when transferring the digital data from the memory device to the receiving device. One of ordinary skill in the art would have been motivated to perform such a modification to ensure that files have not been altered, as taught by Schneier (see page 455, §18.14).

Regarding claim 27, Steinberg discloses a central processing unit/processor built into said memory device (see Fig. 4, element 102).

Regarding claim 29, Steinberg discloses a storage device as modified above that can include an EEPROM or ROM to store data as needed (see col. 5, lines 55-59 & col. 6, lines 56-65).

Allowable Subject Matter

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6. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 30, the prior art relied upon fails to teach a memory storing said electronic signature on said digital data in a redundant area not to be calculated by an ECC of each page in memory.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,644,539 was consulted for background information on flash memory and its benefits (see col. 12, lines 38-45).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (703)305-8191. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:30 p.m.. The examiner can also be reached on alternate Fridays from 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703)308-4789.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

(703)746-7239 (for formal communications intended for entry)

Or:


(703)746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.



MJS
8 January 2004



NORMAN M. WRIGHT
PRIMARY EXAMINER